WHAT IS CLAIMED IS:

1. A method of detecting DTMF signals in a packetized linear voice signal, comprising the steps of:

(a) filtering the packetized linear voice signal through a plurality of notch filters, each of said notch filters having a pair of notches at DTMF frequencies and each of said notch filters producing a filtered signal;

(b) calculating an energy level for each of said filtered signals;

(c) evaluating one or more criteria using said calculated energy levels; and

(d) if said criteria are met, producing a DTMF indicator.

2. The method claimed in claim 1, wherein said notch filters include sixteen parallel notch filters, each having a pair of notches centred at a pair of DTMF frequencies corresponding to a respective DTMF tone.

3. The method claimed in claim 1, wherein the packetized linear voice signal and said filtered signals include frames, and wherein said step of calculating includes calculating said energy level over a selected frame of each of said filtered signals.

4. The method claimed in claim 3, wherein said selected frame includes samples and said step of calculating includes calculating a sum of squares of said samples.

5. The method claimed in claim 1, wherein said energy levels include a minimum energy level and a maximum

energy level and wherein said step of evaluating includes determining whether said maximum energy level exceeds said minimum energy level by at least a predetermined threshold.

6. The method claimed in claim 1, wherein said energy levels include a minimum energy level and a second-to-minimum energy level and wherein said step of evaluating includes determining whether said second-to-minimum energy level exceeds said minimum energy level by at least a predetermined threshold.

7. The method claimed in claim 1, wherein said energy levels include a minimum energy level corresponding to said filtered signal produced by a first of said notch filters having notches at a first and second DTMF frequency, and wherein said step of evaluating includes determining whether said energy level for a second of said notch filters exceeds said energy level for a third of said notch filters by a predetermined threshold, wherein said second filter includes a notch at said first DTMF frequency and said third filter includes a notch at said second DTMF frequency.

8. The method claimed in claim 1, wherein said energy levels include a minimum energy level corresponding to said filtered signal produced by a first of said notch filters having a notch at a first lower DTMF frequency, and wherein said step of evaluating includes determining whether said energy level for a second of said notch filters exceeds said energy level for a third of said notch filters by a predetermined threshold, wherein said second and third filters both include a notch at said first lower DTMF frequency.

9. The method claimed in claim 1, wherein said energy levels include a minimum energy level corresponding to said filtered signal produced by a first of said notch filters having a notch at a first upper DTMF frequency, and wherein said step of evaluating includes determining whether said energy level for a second of said notch filters exceeds said energy level for a third of said notch filters by a predetermined threshold, wherein said second and third filters both include a notch at said first upper DTMF frequency.

10. The method claimed in claim 1, wherein said step of filtering further includes filtering the packetized linear voice signal through a 1004 Hz notch filter having a notch at approximately 1004 Hz and producing a 1004 Hz filtered signal, wherein said step of calculating includes calculating a 1004 Hz energy level for said 1004 Hz filtered signal, and wherein said step of evaluating includes determining whether said 1004 Hz energy level exceeds a predetermined threshold.

11. The method claimed in claim 1, wherein said step of filtering further includes filtering the packetized linear voice signal through a dial tone notch filter having a notch at approximately 400 Hz and producing a dial tone filtered signal, wherein said step of calculating includes calculating a dial tone energy level for said dial tone filtered signal, and wherein said step of evaluating includes determining whether said dial tone energy level exceeds a predetermined threshold.

12. A DTMF detector for detecting DTMF signals in a packetized linear voice signal, comprising:

(a) a plurality of notch filters each having a pair of notches at DTMF frequencies and each of said notch filters receiving the packetized linear voice signal and producing a filtered signal;

(b) a calculating module for calculating an energy level for each of said filtered signals; and

(c) an evaluating module for evaluating one or more criteria using said energy levels and, if said criteria are met, producing a DTMF indicator.

13. The detector claimed in claim 12, wherein said notch filters include sixteen parallel notch filters, each having a pair of notches centred at a pair of DTMF frequencies corresponding to a respective DTMF tone.

14. The detector claimed in claim 13, wherein said sixteen parallel notch filters include 4^{th} order FIR filters.

15. The detector claimed in claim 13, wherein said set of parallel notch filters further include a 1004 Hz notch filter and a dial tone notch filter.

16. The detector claimed in claim 12, wherein the packetized linear voice signal and said filtered signals include frames containing samples, and wherein said calculating module calculates said energy level includes a sum of squares of said samples over a selected frame.

17. The detector claimed in claim 12, wherein said criteria include an energy differential test comparing said energy levels, a twist test comparing said energy levels to determine the relative contributions of a high and low frequency to a suspected DTMF tone, a low frequency tolerance test, and a high frequency tolerance test.

18. The detector claimed in claim 17, wherein said criteria further include a packetized linear voice signal energy level test, a dial tone filtered signal energy level test, and a 1004 Hz filtered signal energy level test.